

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
23 June 2005 (23.06.2005)

PCT

(10) International Publication Number  
**WO 2005/057806 A1**

(51) International Patent Classification<sup>7</sup>:

**H04B 3/32**

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/IL2003/001064

(22) International Filing Date:

11 December 2003 (11.12.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(71) Applicant (for all designated States except US):  
ACTELIS NETWORKS ISRAEL LTD. [IL/IL]; 25  
Bazel St., P.O.B. 10173, 49103 Petach-Tikva (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BAR-EL, Maya [IL/IL]; 17 Zamir St., 45350 Hod-Hasharon (IL).  
LITICHEVER, Zeev [IL/IL]; 35 Gordon Street, 76288  
Rehovot (IL).

(74) Agent: SWIRSKY, Daniel; AlphaPatent Associates Ltd.,  
55 Reuven St., P.O.B. 2345, 99544 Beit Shemesh (IL).

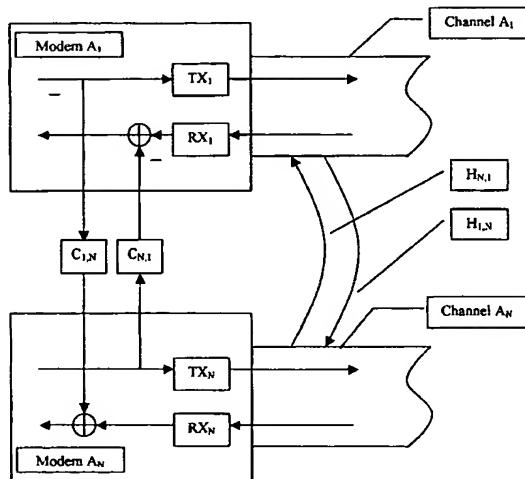
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: HITLESS MODEM POOL EXPANSION AT STEADY STATE



**WO 2005/057806 A1**

(57) Abstract: In a communications system having a first modem transmitting via a communications channel, a method for adding a second modem, the method including learning crosstalk caused by transmissions from the first modem to the second modem while the second modem is in a transmitting state insufficient to cause crosstalk interference to the first modem in accordance with a predefined measure, deriving from the learned crosstalk an estimation of crosstalk that would be caused by the second modem to the first modem when the second modem is in a transmitting state, configuring the first modem to cancel crosstalk according to the crosstalk estimation, causing the second modem to enter a transmitting state sufficient to cause crosstalk interference to the first modem in accordance with a predefined measure, and causing the first modem to at least partially cancel crosstalk caused by the second modem in accordance with the crosstalk estimation.